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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,908	11/21/2003	Toshio Mizue	50212-553	7355

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MCDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

KIM, ELLEN E

ART UNIT PAPER NUMBER

2874

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,908

Applicant(s)

MIZUE, TOSHIO

Examiner

Ellen Kim

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 7 and 8 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is responsive to Applicant's amendment filed on 3/9/2006.

Claims 1-6 are examined for examination purpose.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minamino et al [USPAT 6,619,859] and in view of Rosbeck et al [USPAT 4,961,098].

Minamino discloses an optical module comprising:

An optical subassembly 10 including an optical device therein, the optical subassembly having a co-axial shape [note that optical fibers between holes 10c in fig. 4 are coaxially arranged, column 4, lines 53-end];

A support 5 including first and second leg portions 5f, 5c [fig. 4] and a bridge 5a connecting the first and second leg portions, the first and second leg portions securing the optical subassembly 10 therebetween by being in contact with the optical subassembly 10;

A housing including a base 13 and a cover 12 [fig. 11A], the base 13 having a bottom surface for providing the optical subassembly 10 and the first and second leg portions 5f, 5c of the support 5 thereon; and

A thermal sheet 6 provided between the cover 12 and the support 5;

Wherein the support 5 reduces a stress applied to the optical subassembly 10 from the cover 12 through the thermal sheet 6 and forms a thermal path [inherently done] from the optical subassembly 10 to the cover 12.

Minamino disclose every aspect of claimed invention except for the semiconductor optical device. Minamino teaches at column 4, lines 65-end that the main body 10 can accommodate a photodiode.

Rosbeck et al disclose a photodiode made of semiconductor material.

It would have been obvious to the ordinary skilled person in the art at the time the invention was made to modify Minamino's device to include the semiconductor photodiode as shown in Rosbeck et al for the purpose of high temperature bake stability and high junction capacitance [see Rosbeck et al reference, column 1, lines 20-35]. It is clear that this would improve the device.

In re claim 5, the outer surface of the 10b is spaced from the bridge [the edge whereon the leg portions 5cs are disposed, see fig. 5, near 5j].

In re claim 6, Minamino disclose every aspect of claimed invention except for the solders between the stem and the finger.

Official Notice is taken that soldering for the stable alignment is old and well known in the art. See In Re Malcolm 1942 C.D. 589:543 O.G. 440 MPEP 706.02 (a).

Therefore, it would have been obvious to the ordinary skilled person in the art at the time the invention was made to modify the device to include the solders between the stem and the finger for the purpose of stable alignment and high coupling efficiency of the device.

Response to Arguments

Applicant's arguments filed 3/9/06 have been fully considered.

Applicant's arguments with respect to claims 1, 4-6 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2874

For all official patent application related correspondence for organizations reporting to the Commissioner of Patents:

- Correspondence that is transmitted by facsimile must be directed to the central facsimile number, (703) 872-9306.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Further references of interest are cited on Form PLO-892, which is attachment to this office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen Kim whose telephone number is (571) 272-2349. The examiner can normally be reached on Monday through Thursday.

Ellen E. Kim
Primary Examiner
March 15, 2006/EK

